AMENDMENTS TO THE CLAIMS

1-10. (Canceled).

11. (Currently amended) An image pixel array in an imaging device, comprising:

a first photosensor at or beneath a surface of a substrate; and

a first filter having one or more layers of polysilicon or epitaxial silicon over the first photosensor and substrate, the first filter connected to a ground ~~potential~~ terminal configured to drain charge from the first filter and having a first thickness and absorbing a majority of light at wavelengths shorter than a first wavelength and passing a majority of light at wavelengths longer than the first wavelength;

the first photosensor receiving light passed by the first filter, absorbing a majority of light received at wavelengths shorter than a second wavelength and longer than the first wavelength, and passing a majority of light received at wavelengths longer than the second wavelength;

a second photosensor at or beneath the surface of the substrate and laterally adjacent to the first photosensor; and

a second filter having one or more layers of polysilicon or epitaxial silicon over the second photosensor and substrate, the second filter having a second thickness and absorbing a majority of light at wavelengths shorter than the second wavelength and passing a majority of light at wavelengths longer than the second wavelength;

the second photosensor receiving light passed by the second filter, absorbing a majority of light received at wavelengths shorter than a third wavelength and longer than the second wavelength, and passing a majority of light received at wavelengths longer than the third wavelength.

12. (Previously presented) The image pixel array of claim 11, wherein the first and second photosensors are formed beneath an upper surface of the substrate.

13. (Previously presented) The image pixel array of claim 12, wherein the first and second photosensors are selected from the group consisting of a photo diode, photogate, photoconductor, or other image to charge converting device for initial accumulation of photo-generated charge.

14. (Previously presented) The image pixel array of claim 11, wherein the one or more polysilicon or epitaxial silicon layers of the first filter are formed to attenuate only light having a wavelength of blue light.

15. (Previously presented) The image pixel array of claim 11, wherein the one or more polysilicon or epitaxial silicon layers of the second filter are formed to attenuate light having a wavelength of blue light and light having a wavelength of green light.

16. (Previously presented) The image pixel array of claim 11, wherein a layer of tetraethyl orthosilicate is formed over the one or more polysilicon or epitaxial silicon layers of the first filter.

17. (Canceled).

18. (Previously presented) The image pixel array of claim 11, wherein an insulating layer is formed over the one or more polysilicon or epitaxial silicon layers of the first filter.

19. (Previously presented) The image pixel array of claim 18, wherein electrical contacts are formed in the insulating layer.

20. (Previously presented) The image pixel array of claim 11, wherein the pixel array is formed of about 1.3 megapixels to about 4 megapixels.

21. (Previously presented) The image pixel array of claim 11, wherein the first or second filters blocks non-normally incident light.

22. (Canceled).

23. (Withdrawn) An image pixel array in an imaging device, comprising:

a plurality of photosensors at a surface of a substrate, said plurality comprising a first set, second set and third set of photosensors;

a first epitaxial silicon filter over each of said first set of photosensors, said first epitaxial silicon filter connected to a ground potential and comprising part of a first patterned layer of epitaxial silicon over the photosensor;

a second epitaxial silicon filter over each of said second set of photosensors, said second epitaxial silicon filter comprising part of the first patterned layer over the photosensor and part of a second patterned layer of epitaxial silicon over said first patterned layer; and

readout circuitry at the substrate's surface that provides readout signals indicating a quantity of incident light absorbed in the photosensors;

each first epitaxial silicon filter absorbing a majority of light at wavelengths shorter than a first wavelength and transmitting a majority of light at wavelengths longer than the first wavelength;

each of the first set of photosensors receiving light transmitted by the first epitaxial silicon filter, absorbing a majority of light received at wavelengths shorter than a second wavelength and longer than the first wavelength, and transmitting a majority of light received at wavelengths longer than the second wavelength;

each second epitaxial silicon filter absorbing a majority of light at wavelengths shorter than a third wavelength approximately equal to the second wavelength and transmitting a majority of light at wavelengths longer than the third wavelength;

each of the second set of photosensors receiving light transmitted by the second epitaxial silicon filter, absorbing a majority of light received at wavelengths shorter than a fourth wavelength and longer than the third wavelength, and transmitting a majority of light received at wavelengths longer than the fourth wavelength; and

each of the third set of photosensors absorbing a majority of light received at wavelengths shorter than a fifth wavelength approximately equal to the first wavelength, and transmitting a majority of light received at wavelengths longer than the fifth wavelength.

24. (Canceled)

25. (Withdrawn) An imager system, comprising:

a processor; and

an imaging device coupled to said processor, said imaging device comprising:

a semiconductor substrate; and

a pixel array, said pixel array comprising:

at least one photosensor at or beneath a surface of a substrate; and

an epitaxial silicon filter over said photosensor, the epitaxial silicon filter absorbing a majority of light at wavelengths shorter than a first wavelength and transmitting a majority of light at wavelengths longer than the first wavelength;

the photosensor receiving light transmitted by the epitaxial silicon filter, absorbing a majority of light received at wavelengths shorter than a second wavelength and longer than the first wavelength, and transmitting a majority of light received at wavelengths longer than the second wavelength.

26-27. (Canceled)

28. (Withdrawn) An image pixel array in an imaging device, comprising:

a plurality of photosensors at a surface of a substrate, said plurality comprising a first set, second set and third set of photosensors;

a first crystal silicon filter over each of said first set of photosensors, said first crystal silicon filter connected to a ground potential and comprising part of a first patterned layer of epitaxial crystal silicon over the photosensor;

a second crystal silicon filter over each of said second set of photosensors, said second crystal silicon filter comprising part of the first patterned layer over the photosensor and part of a second patterned layer of epitaxial crystal silicon over said first patterned layer; and

readout circuitry at the substrate's surface that provides readout signals indicating a quantity of incident light absorbed in the photosensors;

each first crystal silicon filter absorbing a majority of light at wavelengths shorter than a first wavelength and transmitting a majority of light at wavelengths longer than the first wavelength;

each of the first set of photosensors receiving light transmitted by the first crystal silicon filter, absorbing a majority of light received at wavelengths shorter than a second wavelength and longer than the first wavelength, and transmitting a majority of light received at wavelengths longer than the second wavelength;

each second crystal silicon filter absorbing a majority of light at wavelengths shorter than a third wavelength approximately equal to the second wavelength and transmitting a majority of light at wavelengths longer than the third wavelength;

each of the second set of photosensors receiving light transmitted by the second crystal silicon filter, absorbing a majority of light received at wavelengths shorter than a fourth wavelength and longer than the third wavelength, and transmitting a majority of light received at wavelengths longer than the fourth wavelength; and

each of the third set of photosensors absorbing a majority of light received at wavelengths shorter than a fifth wavelength approximately equal to the first wavelength, and transmitting a majority of light received at wavelengths longer than the fifth wavelength.

29. (Canceled)

30. (Currently amended) An imager integrated circuit, comprising:

a substrate;

a pixel array at the substrate's surface, the pixel array comprising:

first and second sets of pixels, each including a photodiode comprising a doped region of a first conductivity type at a same depth below the substrate's surface;

a first polysilicon filter having a first thickness over each of the photodiodes in the first set of pixels, the first polysilicon filter connected to a ground ~~potential~~ terminal configured to drain charge from the first polysilicon filter and absorbing a majority of light at wavelengths shorter than a first wavelength and passing a majority of light at wavelengths longer than the first wavelength;

a second polysilicon filter having a second thickness different than the first thickness over each of said photodiodes in the second set of pixels, the second polysilicon filter absorbing a majority of light at wavelengths shorter than a second wavelength longer than the first wavelength and passing a majority of light at wavelengths longer than the second wavelength; and

readout circuitry that provides readout signals indicating a quantity of incident light absorbed in each of the photodiodes.

31. (Currently amended) An imager integrated circuit, comprising:

a substrate;

a pixel array at the substrate's surface, the pixel array comprising:

first and second sets of pixels, each including a photodiode comprising a doped region of a first conductivity type at a same depth below the substrate's surface;

a first crystal silicon filter having a first thickness over each of the photodiodes in the first set of pixels, the first crystal silicon filter connected to a ground potential configured to drain charge from the first crystal silicon filter and absorbing a majority of light at wavelengths shorter than a first wavelength and passing a majority of light at wavelengths longer than the first wavelength;

a second crystal silicon filter having a second thickness different than the first thickness over each of said photodiodes in the second set of pixels, the second crystal silicon filter absorbing a majority of light at wavelengths shorter than a second wavelength longer than the first wavelength and passing a majority of light at wavelengths longer than the second wavelength; and

readout circuitry that provides readout signals indicating a quantity of incident light absorbed in each of the photodiodes.

32-57. (Canceled).

58. (Previously presented) The image pixel array of claim 11, wherein the second thickness is greater than the first thickness.

59. (Previously presented) The imager integrated circuit of claim 30, wherein the second thickness is greater than the first thickness.

60. (Previously presented) The imager integrated circuit of claim 31, wherein the second thickness is greater than the first thickness.

61. (Currently amended) An image pixel array in an imaging device, comprising:

a first photosensor at or beneath a surface of a substrate; and

a first filter comprising one or both of polysilicon or epitaxial silicon over the first photosensor and substrate, the polysilicon or epitaxial silicon of the first filter connected to a ground ~~potential~~ terminal configured to drain charge from the first filter and having a first thickness and absorbing a majority of light at wavelengths shorter than a first wavelength and passing a majority of light at wavelengths longer than the first wavelength;

the first photosensor receiving light passed by the first filter, absorbing a majority of light received at wavelengths shorter than a second wavelength and longer than the first wavelength, and passing a majority of light received at wavelengths longer than the second wavelength;

a second photosensor at or beneath the surface of the substrate and laterally adjacent to the first photosensor; and

a second filter comprising of one or both of polysilicon or epitaxial silicon over the second photosensor and substrate, the polysilicon or epitaxial silicon of the second filter having a second thickness and absorbing a majority of light at wavelengths shorter than the second wavelength and passing a majority of light at wavelengths longer than the second wavelength;

the second photosensor receiving light passed by the second filter, absorbing a majority of light received at wavelengths shorter than a third wavelength and longer than the second wavelength, and passing a majority of light received at wavelengths longer than the third wavelength.

62. (Previously presented) The image pixel array of claim 61, wherein the first and second photosensors are formed beneath an upper surface of the substrate.

63. (Previously presented) The image pixel array of claim 61, wherein the first filter is formed to attenuate only light having a wavelength of blue light.

64. (Previously presented) The image pixel array of claim 61, wherein the second filter is formed to attenuate light having a wavelength of blue light and light having a wavelength of green light.

65. (Previously presented) The image pixel array of claim 61, wherein tetraethyl orthosilicate is formed over the first filter.

66. (Previously presented) The image pixel array of claim 61, wherein an insulating material is formed over one or both of the first and second filters.

67. (Previously presented) The image pixel array of claim 61, wherein one or both of the first or second filters blocks non-normally incident light.

68. (Previously presented) The image pixel array of claim 61, further comprising:

a third photosensor at or beneath a surface of the substrate that receives incident light, the third photosensor absorbing a majority of incident light at wavelengths shorter than the first wavelength and passing a majority of incident light at wavelengths longer than the first wavelength.

69. (Previously presented) The image pixel array of claim [[69]]68, wherein the first wavelength is approximately between blue and green visible light.

70. (Previously presented) The image pixel array of claim 11, further comprising:

a third photosensor at or beneath a surface of the substrate that receives incident light, the third photosensor absorbing a majority of incident light at wavelengths shorter than the first wavelength and passing a majority of incident light at wavelengths longer than the first wavelength.

71. (Previously presented) The image pixel array of claim [[71]]70, wherein the first wavelength is approximately between blue and green visible light.